CIA TRiad & Gen Cyber CyberSecurity Concepts

**Lesson Description:** In this learning module, teachers will learn the CIA Triad, which consists of Confidentiality, Integrity and Availability. Time will also be used to review the GenCyber Cybersecurity Concepts

**Prerequisite Knowledge:** How to surf the web and use Google.

**Length of Completion**: 30 minutes

**Level of Instruction:** All.

**Applicable First Principles &/or Concepts:**

**GenCyber First Principles**

Domain Separation Abstraction

Process Isolation Data Hiding

Resource Encapsulation Layering

Modularity Simplicity

Least Privilege Minimization

**GenCyber Cybersecurity Concepts**

Defense in Depth **Availability**

**Confidentiality** Think Like an Adversary

**Integrity** Keep it Simple

**Resources that are Needed:** Computer with internet access.

**Accommodations Needed:** Instructions will be given verbally and on screen. Images will be used in PowerPoint to support student understanding. Students will have the opportunity to engage in small group discussion before whole-group share out. Other accommodations as needed.

# learning outcomes

LEsson learning oUTCOMES

* Students will be able to identify which of the CIA Tenants are presented given a scenario
* Students will be able to give an example of two of the GenCyber Cybersecurity principles.

# Lesson Details

**Interconnection:** Lays out foundations of online safety for remainder of the day and for lessons on Friday.

**Assessment:** Post exercise discussions, Observations, Walk around.

**Extension Activities:** Students can do a google search on “CIA Triad” to find many links to websites with explanations these tenets.

**Differentiated Learning Opportunities:** None

# lesson 3.3

**Lesson 3.3 Details:**

**Warm Up:** Instructor asks the teachers to discuss what keeps a student from changing his/her own grades.

**Lesson:**

- Describe the Focused Activity:

Video explaining topic.

- Describe the Teacher Instruction:

30 minutes of lecture with a PowerPoint, discussion and supporting videos. The following topics will be discussed:

1. Confidentiality

a. What is it b. How do we protect it

2. Integrity

a. What is it b. How do we protect it

3. Availability a. What is it b. How do we protect it

4. Select the correct tenet

a. Given a scenario, decide which tenet is at risk

Overview of the GenCyber Cybersecurity Concepts

Video: https://youtu.be/432IHWNMqJE

Acknowledgement: Lesson developed by Roger Spears and Tami Norris.